CLAIMS

1.   A transcoder for generating, from a first multiplexed stream, a second

multiplexed stream, comprising:

        means for separating a first elementary stream from the first multiplexed stream

supplied;

        means for converting the first elementary stream separated by the separating

means by a predetermined method to a signal;

        means for packetizing the signal converted by the converting means to generate

a first packet;

        means for storing timing information indicating a time at which a packet,

containing a second elementary stream forming the first multiplexed stream, appears

in the multiplexed stream; and

        means for multiplexing, based on the timing information stored in the storing

means, the first packet generated by the packetizing means and a second packet

containing the second elementary stream to generate the second multiplexed stream.

2.   The apparatus as set forth in Claim 1, wherein the converting means

includes means for decoding the first elementary stream separated by the separating

means to generate an original signal corresponding to the first elementary stream, and

means for encoding the original signal generated by the decoding means at a

predetermined bit rate.

3.   The apparatus as set forth in Claim 1, wherein the converting means converts, by a predetermined method, codes forming the first elementary stream separated by the separating means.

4.   The apparatus as set forth in Claim 1, wherein the multiplexing means multiplexes, based on the timing information stored in the storing means, the second packet to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream.

5.   The apparatus as set forth in Claim 1, wherein the first elementary stream is a video stream.

6.   A transcoding method for generating, from a first multiplexed stream, a second multiplexed stream, comprising the steps of:

separating a first elementary stream from the first multiplexed stream supplied;

converting the first elementary stream separated at the separating step by a predetermined method to a signal;

packetizing the signal converted at the converting step to generate a first packet;

storing timing information indicating a time at which a packet, containing a second elementary stream forming the first multiplexed stream, appears in the multiplexed stream; and

multiplexing, based on the timing information stored at the storing step, the first packet generated at the packetizing step and a second packet containing the second elementary stream to generate the second multiplexed stream.

7. The method as set forth in Claim 6, wherein the converting step comprises the steps of:

decoding the first elementary stream separated at the separating step to generate an original signal corresponding to the first elementary stream; and

encoding the original signal generated at the decoding step at a predetermined bit rate.

8. The method as set forth in Claim 6, wherein at the converting step, codes forming the first elementary stream separated at the separating step are converted by a predetermined method.

9. The method as set forth in Claim 6, wherein at the multiplexing step, the second packet is multiplexed, based on the timing information stored at the storing step, to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream.

10. The method as set forth in Claim 6, wherein the first elementary stream is a video stream.

11. A medium having recorded therein a transcoding program to generate, from a first multiplexed stream, a second multiplexed stream and which is to be executed by a computer, the program comprising the steps of:

separating a first elementary stream from the first multiplexed stream supplied;

converting the first elementary stream separated at the separating step by a predetermined method to a signal;

packetizing the signal converted at the converting step to generate a first packet;

storing timing information indicating a time at which a packet, containing a second elementary stream forming the first multiplexed stream, appears in the multiplexed stream; and

multiplexing, based on the timing information stored at the storing step, the first packet generated at the packetizing step and a second packet containing the second elementary stream to generate the second multiplexed stream.

12.   The medium as set forth in Claim 11, wherein the converting step in the program comprises the steps of:

decoding the first elementary stream separated at the separating step to generate an original signal corresponding to the first elementary stream; and

encoding the original signal generated at the decoding step at a predetermined bit rate.

13.   The medium as set forth in Claim 11, wherein at the converting step in the program, codes forming the first elementary stream separated at the separating step are converted by a predetermined method.

14.   The medium as set forth in Claim 11, wherein at the multiplexing step in the program, the second packet is multiplexed to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream based on the timing information stored at the storing step.

15.   The medium as set forth in Claim 11, wherein the first elementary stream is

a video stream.